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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/695,608	10/28/2003	Ajaykumar P. Idnani	CE10785R/10-186	6297

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EXAMINER
NG, CHRISTINE Y

ART UNIT	PAPER NUMBER
2663	

DATE MAILED: 03/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO 90C (Rev 10/03)

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _28 October 2003_.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-18_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-18_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _28 October 2003_ is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2.   Claims 1-3, 5-8, 10-15, 17 and 18 are rejected under 35 U.S.C. 102(b) as being

anticipated by U.S. Patent No. 6,130,892 to Short et al.

Referring to claims 1 and 7, Short et al disclose in Figure 1 a host (nomadic

router 10) in a visited subnet (communications device 14) configured to assist a mobile

node MN (host device 12) that is assigned to a home subnet and in the visited subnet to

transmit a packet, the MN being unaware that the MN is no longer in the home subnet.

Refer to Column 5, lines 32-51 and Column 6, lines 7-14. The host comprises:

A transceiver (Figure 2, network interface 10a) for communicating with the MN.

Refer to Column 5, lines 52-54.

A processor (Figure 2, processor consisting of hardware and/or software)

coupled to the transceiver for controlling the host, wherein the processor is programmed

to cooperate with the transceiver to (Refer to Column 5, lines 55-58):

Receive (Figure 8, Steps 2-3) from the MN an ARP Request to discover a first

MAC address of a device (home gateway) in the home subnet, the ARP Request

containing an IP address assigned to the device. Refer to Column 6, lines 7-14 and

Column 11, line 59 to Column 12, line 10.

Determine (Figure 8, Step 3) that said IP address does not belong to the visited

subnet. The nomadic router 10 receives the ARP request because the host device 12 is

not in its home subnet. Refer to Column 6, lines 7-14 and Column 11, line 59 to

Column 12, line 10.

Return (Figure 8, Steps 4-5) in response to determining that said IP address

does not belong to the visited subnet, an ARP Response containing a second MAC

address, which the MN will assume to be the MAC address of said device (home

gateway) in the home subnet. Refer to Column 11, line 59 to Column 12, line 10.

Referring to claims 2, 10 and 14, Short et al disclose in Figure 1 that the host

further comprises:

A network interface (Figure 2, network interface 10b) coupled to the processor for

interfacing with a network (internet/intranet/subnet 14). Refer to Column 5, lines 54-55.

Wherein the processor is further programmed to cooperate with the transceiver

(Figure 2, network interface 10a) and the network interface (Figure 2, network interface

10b) to:

Receive (Figure 9A, Steps 1-3), from the MN, the packet addressed to the

second MAC address. Refer to Column 13, lines 38-52.

Reverse tunnel (Figure 9A, Steps 4-8) the packet to the home subnet. Refer to

Column 13, line 53 to Column 14, line 22.

Referring to claims 3, 8 and 15, Short et al disclose in Figure 1 that the processor

is further programmed to return a MAC address that is the MAC address of the host

(nomadic router 10). The host (nomadic router 10) "receives this ARP request

broadcast and responds with its MAC address (not that of the destination node)"

(Column 11, lines 62-67).

Referring to claims 5, 11 and 17, Short et al disclose in Figure 1 that:

Wherein the visited subnet (communications device 14) comprises a wireless

network (wireless LAN) and wherein the host (nomadic router 10) comprises a wireless

access point (wireless router) of the visited subnet. Refer to Column 2, lines 52-62;

Column 6, lines 28-32; Column 7, lines 38-48; and Column 15, lines 15-25.

Referring to claims 6, 12 and 18, Short et al disclose in Figure 1 that:

Wherein the visited subnet (communications device 14) comprises a wireline

network (local networks, wide area networks, dial-up and direct internet connections)

and wherein the host (nomadic router 10) comprises a server (wired router) in the

visited subnet. Refer to Column 5, lines 32-63; Column 6, lines 28-32; and Column 15,

lines 15-25.

Referring to claim 13, the nomadic router 10 can also be implemented as a

software program comprising executable instructions. Refer to the rejection of claim 1;

Column 2, lines 29-30 and lines 45-51; and Column 9, lines 36-48.

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

4.   Claims 4, 9 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable

over U.S. Patent No. 6,130,892 to Short et al in view of U.S. Patent No. 6,795,857 to

Leung et al.

        Short et al do not disclose that the processor is further programmed to return a

predetermined "dummy" MAC address that is not utilized elsewhere in the visited

subnet.

        Leung et al disclose in Figure 7 that when a node does not implement the Mobile

IP Protocol, it cannot modify the foreign agent through which it sends and receives

packets when the node moves to a different location. A virtual foreign agent is

implemented to represent different foreign agents, so that the node appears to send a

packet to only one foreign agent rather than several different ones. The foreign agents

are each assigned the same dummy IP/MAC address that is "not used within the

network and therefore is dedicated for the purpose of implementing the virtual agent".

The foreign agents use this dummy address to assist the node in sending and receiving

packets when it is outside of its home subnet. Refer to Column 13, line 53 to Column

15, line 38.. Therefore, it would have been obvious to one of ordinary skill in the art at

the time the invention was made to include that the processor is further programmed to

return a predetermined "dummy" MAC address that is not utilized elsewhere in the

visited subnet, the motivation being in order for a mobile node to use the dummy MAC

address to transmit packets to its home subnet when it is in a visited subnet, the dummy

MAC address being dedicated only to assisting the mobile node.

Conclusion

5.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christine Ng whose telephone number is (571) 272-3124. The examiner can normally be reached on M-F; 8:00 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on (571) 272-3139. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

C. Ng
March 8, 2005

RICKY NGO
PRIMARY EXAMINER   3/9/05